



AAR-100

Human Factors Newsletter # 01-01

(January 1, 2001 – January 12, 2001)

- **CAMI Director Retires:** William E. Collins, Ph.D., the Director of the Civil Aeromedical Institute (CAMI) for the past 12 years, retired from government service on January 3, 2001. Dr. Collins was appointed Director in August 1989 following one year as both Assistant Director and Acting Director. His appointments came during a difficult period in the history of the Institute, and Dr. Collins was instrumental in significantly increasing CAMI funding and positions, particularly in the research areas, upgrading technical resources and the facility, and maintaining those gains, despite several major governmental reduction programs. He also initiated the Institute's successful drive to achieve "world class" status.

Dr. joined the FAA as a research psychologist and was named chief of the Aviation Psychology Laboratory in 1965. That laboratory later became a separate branch in 1986 and then a division in 1988 with a new title – Human Resources Research.

In addition to numerous FAA awards and the Department of Transportation Silver Medal for organizational achievements, Dr. Collins is an elected Fellow of the Aerospace Medical Association (AsMA), American Psychological Association, American Psychological Society, Aerospace Human Factors Association, American Association for the Achievement of Science, and the New York Academy of Sciences. His major research-based awards include the AsMA President's Citation and the Longacre and Moseley Awards, both of which are Professional Excellence and President's Awards from the AsMA Life Sciences and Biomedical Engineering Branch, and the Hansen Award from the Aerospace Human Factors Association. He also is the recipient of the Oklahoma Psychologist Association's Distinguished Psychologist Award for professional excellence. Dr. Collins made five appearances before subcommittees of the US House of Representatives. He also was a twice-elected chair of the Oklahoma State Board of Examiners of Psychologists and holds appointment as an Adjunct Professor in the Department of Psychiatry and Behavioral Sciences at the University of Oklahoma. In

summing up his FAA career. Dr. Collins said, "It's been a privilege to have been associated with Dr. Jordan and to have worked at CAMI. It's been particularly rewarding for both of us to see CAMI rise to world class status in so many ways and to know that its global influence will increase markedly during the next decade." (M. Rodgers, AAR-100)

- **Computer-Human Interface:** Chapter 8 of the Human Factors Design Guide deals with the ever present topic of the computer human interface. Researchers at the William J. Hughes Technical Center have completed revisions and updates to this chapter using the latest state-of-the-art documentation. All reviews are complete and the chapter has gone to the printers to be published as a stand alone Technical Note. A notice will be dispatched when the document is available for distribution. (E. Stein, WJHTC)
- **Human Factors Evaluation of Revised CTX 5500 Training:** On December 27, 2000, Veridian Engineering delivered to the Aviation Security Human Factors Program (AAR-510) a draft preliminary data report of an evaluation of the revised CTX 5500 training course. An American Airlines instructor taught the course at John F. Kennedy International Airport from November 27 to December 12. The course included a revised alarm resolution protocol and a job performance aid for the protocol. This evaluation was the second phase of a three-phase evaluation of the revised course and the influence of the new protocol and job performance aid on operator performance. At the conclusion of phase three, an omnibus report that presents the results of all three phases will be delivered as an FY01 Developmental Implementation Plan requirement. (C. George, AAR-1)
- **Aviation Security Laboratory Visit:** The New Associate Administrator for Civil Aviation Security (ACS-1) visited the Aviation Security Laboratory earlier this month. Included was a stop at the Security Operations Center before arriving at the Aviation Security Research and Development complex for an informal tour and demonstration. Laboratory tours included demonstrations in the Trace Laboratory of several new portals, operation of Threat Image Projection in the Human Factors Laboratory, operations of the L3 and InVision Explosives Detection Systems, and the operation of the Raport Fast Trac Automated Door System. (C. George, AAR-1)
- **Runway Safety:** Donald W. Gallagher, AAR-411, has been selected by the Joint Safety Implementation Team as a member of the Situational Awareness Technology for Air Traffic Control (SATATC) focus team. The purpose of this team is to develop and implement technology tools that will provide and/or enhance airport surface situational awareness to air traffic controllers. The first meeting of the team took place by telecon on January 10. The second meeting will be at FAA Headquarters on February 8. (C. George, AAR-1)
- **Aircraft Evacuations:** The Office of Aviation Medicine is publishing a report on evacuations through over wing exits entitled "Access-To-Egress: A Meta-Analysis Of The Factors That Control Emergency Evacuation Through The Transport Airplane Type-III Over Wing Exit", DOT/FAA/AM-01/2. The report is an analysis of all transport airplane Type-III over wing exit research studies conducted to date to determine the

effects of variables on efficiency of egress through the exit. Variables include: seating configuration and placement at the Type-III exit, hatch operation and weight, use of protective equipment, theatrical smoke, flight attendant management of subjects, subject motivation level (use of financial incentives), and subject evacuation experience. Subject demographic and anthropometric characteristics have generally been used as covariates or predictor variables in analyses of these experiments, leading to a range of described effects on egress related to human factors issues. In fact, the human factors effects have been shown to be much more responsible for the variance seen in these studies, often masking the effects of the other treatments. The findings are discussed in relation to possible interventions that might prove useful for enhancing emergency evacuations via changes to airplane design and operations. (M. McLean, CAMI)

- **Electronic Flight Bag (EFB):** A researcher from the Volpe NTSC visited Boeing (Seattle) on January 8-9, 2001. The purpose of the trip was to see a demonstration of Boeing 777 Electronic Checklists, and to discuss the Volpe human factors document on EFBs which was released in September 2000. This document is intended to facilitate the development of FAA advisory material for the evaluation and operational approval of EFBs. Several Boeing human factors staff reviewed the document and prepared detailed comments. The Boeing staff also provided input for a draft Advisory Circular on EFBs, which is being prepared jointly by Flight Standards and Aircraft Certification. (T. McCloy, AAR-100; D. Chandra, VNTSC)

More information on human factors research can be found at the FAA Human Factors (AAR-100) web site: <http://www.hf.faa.gov>

Mark D. Rodgers
FAA (AAR-100)



January 17, 2001 – ATCA Symposium – “Air 21”, Renaissance Hotel, Wash, D.C.
<http://www.atca.org/>

February 22-23, 2001 – 2001 Aviation Maintenance Training Conference, Toulouse, France
<http://www.avex-online.com/>

February 22-23, 2001 – Human Factors for Aviation Technicians Workshop. Atlanta, GA
<http://www.greyowl.com>

March 13-15, 2001 – The Advanced Technology Electronic Defense Systems Conference and The Tactical Situational Awareness Symposium, Shelter Pointe Hotel and Marina on Shelter Island, San Diego, CA [mail to:AssenmacheTJ@navair.navy.mil](mailto:AssenmacheTJ@navair.navy.mil)

March 18-20, 2001 – National Aviation Environmental Conference, Dallas, TX
<http://www.airportnet.org/>

March 21-23, 2001 – International Symposium on Smart Graphics, Hawthorne, NY
<http://www.smartgraphics.org/>

March 27-29, 2001- The Fifteenth Symposium on Human Factors in Aviation Maintenance, The Brewery Conference Centre, London, UK [mail to: enquiries@conferenceconsultancy.com](mailto:enquiries@conferenceconsultancy.com)

March 31 – April 5, 2001- CHI 2001, Seattle, WA <http://www.acm.org/chi2001>

April 3-5, 2001 – Maintenance Repair and Overhaul Conference and Exhibition, Dallas, TX
<http://www.aviationnow.com/>

April 8-14, 2001 – Sun ‘n Fun EAA Fly-In, Lakeland, FL <http://www.sun-n-fun.com/>

April 24-26, 2001 – 46th Annual Corporate Aviation Safety Seminar, Orlando, FL
<http://www.nbaa.org/>

April 30-May 2, 2001- Regional Airline Association Convention, Tampa, FL
<http://www.raa.org/>

May 3-4, 2001 – Human Factors for Aviation Technicians Workshop, Long Beach, CA
<http://www.greyowl.com>

May 14-17, 2001 – DOD Technical Advisory Group Meeting, Antler’s Adam’s Mark Hotel, Colorado Springs, CO <http://dticam.dtic.mil/hftag/>

June 3-8, 2001- Society for Information Display, International Symposium, Seminar & Exhibition, San Jose Convention Center, San Jose, CA [mail to: pdrzaic@elink.com](mailto:pdrzaic@elink.com)

June 17-24, 2001 – Paris Air Show, Le Bourget, France <http://www.promosalons.com/>

July 8-11, 2001 – ATCA 12th Annual International Technical Conference & Exhibition, Conrad International Hotel, Dublin, Ireland <http://www.atca.org/>

August 5-10, 2001 – 9th International Conference on Human-Computer Interaction, New Orleans, LA <http://hcii2001.engr.wisc.edu/>

September 10-14, 2001 – Aerospace Congress & Exhibition By Aerospace North America and SAE, Washington State Convention and Trade Center, Seattle, WA [mail to:kthomson@sae.org](mailto:kthomson@sae.org)

September 18-20, 2001 – NBAA Annual Meeting and Convention, New Orleans, LA
<http://www.nbaa.org/>

October 8-12, 2001 – Human Factors and Ergonomics Society 45th Annual Meeting, Minneapolis, MN <http://www.hfes.org/>

October 2001- Annual Cabin Safety Research Technical Group Meeting, Taj Mahal Hotel and Casino, Atlantic City, NJ

November, 2001 – DOD Technical Advisory Group Meeting, San Diego, CA
<http://dticam.dtic.mil/hftag/>

November 4-8, 2001 – ATCA 46th Annual International Program & Exhibits, Washington Convention Center, Wash, D.C. <http://atca.org/>

December, 2001 – EUROCONTROL Air Traffic Management R&D Seminar, Santa Fe, New Mexico <http://eurocontrol.fr/>

September 23-27, 2002 – Human Factors and Ergonomics Society 46th Annual Meeting, Pittsburg, PA <http://www.hfes.org/>

Note: Calendar events in Italics are new since the last Newsletter



Comments or questions regarding this newsletter?
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